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ABSTRACT

The literature on graduate and professional education reflects many of the trends present in the literature on undergraduate education, including concerns about student learning; transforming the curriculum to be more inclusive; internationalization of the curriculum; incorporation of technology; growth in interdisciplinary education; and outcomes assessment. Additionally the literature on graduate and professional education also focuses on the overproduction of graduates; admissions criteria; experientially based pedagogy; faculty empowerment; equity; attrition and financial aid; and responsiveness to the profession and the public. While much literature is devoted to the growing demand for graduate education, some articles are concerned with overproduction of graduate students. Also being explored are admission criteria and the changing characteristics of students; problem-based and experiential learning, including literature on teams, cases, and simulations; and faculty empowerment and the importance of mentoring new faculty and finding ways to make adjunct faculty feel included. Equity is a common theme in the literature, with discussions ranging from increasing the number of students in graduate school to increasing funding to support minority students. Also addressed is attrition in graduate and professional schools, especially of underrepresented groups, and the rise of indebtedness among graduate students. (Contains 52 references.) (JM)

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Higher Education Trends (1997-1999): Graduate and Professional Education

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Higher Education Trends (1997-1999)
Graduate and Professional Education

by Adrianna J Kezar

The literature on graduate and professional education reflects many of the same trends present in the literature on undergraduate education. For example, it discusses concerns about student learning (Siemsen and Foley), transforming the curriculum to be more inclusive (Bernstein; Gold), internationalizing the curriculum (Dore; Goldsmith; Sexton), the incorporation of technology, as, for example, in "virtual clinical campuses" (Friedman; Hammack), growth in interdisciplinarity or interprofessional education (Gordon et al.), and outcomes assessment (Glassman et al.; Mennin et al.). It also discusses increased demand for access to education for all, and concerns about equity, affirmative action, financial aid, and attrition, which are also prevalent in the literature on undergraduate education.

Some distinct differences, however, also can be noted:

1. *The overproduction of graduates,*
2. *Admissions criteria,*
3. *Experientially based pedagogy,*
4. *Empowerment of the faculty,*
5. *Equity,*
6. *Attrition and financial aid, and*
7. *Responsiveness to the profession and the public.*

Surprisingly, the literature on graduate programs seems to show an even greater emphasis on internationalization, equity, interdisciplinarity, and technology than the literature on undergraduate teaching and learning. Perhaps it is a one-year phenomenon or perhaps discussions have already come and gone in undergraduate education, but they are intriguing differences. And the concept of outcomes assessment appears to be more accepted in the graduate environment (Glassman et al.; Mennin et al.), perhaps because many professional programs already use outcomes measures (bar and CPA exams, for example).

The Overproduction of Graduates

Ironically, a tremendous amount of literature discusses the growing demand for graduate education at the same time other articles are concerned about overproduction of graduate students (Domer et al.; Hartle and Galloway). These two forces will surely come to a head in the near future. This growth in interest is also indicated by the growth of guidebooks on graduate programs (Davis-Van Atta), including a guidebook by the National Science Foundation about graduate programs in science (Duby) and *The Research Student's Guide to Success* (Cryer). This problem may be more applicable to graduate than to professional schools, but research on the nexus of overproduction and growing demand is clearly needed.

Admissions and the Changing Characteristics of Students

Criteria for admission to graduate school are currently undergoing exploration and change as schools contemplate a move toward portfolios, simulation, and cases rather than

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traditional standardized tests, since standardized tests differ greatly from the thinking required for graduate school (Duncan-Hewitt). For example, a study of 503 applicants to the University of Helsinki medical school compared the predictive validity of multiple-choice science tests and a "learning-from-text" (LFT) test designed to measure deep-level text processing. Results indicated that LFT is the better predictor of students' academic progress in basic science courses (Lindblom-Ylanne et al.), and it is an important new direction in the literature.

Affirmative action in graduate schools is a highly contested concept in the literature for 1996. Leslie Yalof Garfield describes the difficulties in admitting a fully diverse law school class under the traditional application process, reviews appropriate standards for court review, and outlines a model admissions policy that addresses diversity. More research on affirmative action in the changing environment is necessary.

Also related to admissions is a concern about trying to change the composition of graduate classes to be more inclusive. The number of women and international students continues to rise at the same time concern continues about the limited increase in minority enrollments in many fields. For example, one study focused on the sciences found that the number of women has continued to increase: from 8 percent in 1975 to 16 percent in 1995. While enrollments of foreign students continue to increase, especially in graduate programs, African-Americans and Hispanic-Americans continue to be underrepresented among physics graduates, while Asian-Americans continue to be overrepresented (Dodge and Mulvey). Quite a bit of research has been undertaken on recruitment and retention of underrepresented groups; what is needed now is a synthesis of the literature.

Pedagogy: Problem-based Learning, Teams/Cases, and Simulations

Problem-based and experiential learning is much more heavily emphasized in the literature on graduate schools (Blake et al.; Druker et al.; Ryan et al.). It appears that graduate schools are more likely to use techniques that are successful with adult learners. Will we continue to see 18- to 22-year-olds as young learners and 23-year-olds that enter graduate school as adults? The issue needs to be explored, as it is a somewhat hypocritical stance. It is unusual that experiential learning continues to struggle to find a place in undergraduate education but is clearly an important element in professional fields and in graduate education in general. Other active learning techniques, such as videotaping, role playing, and simulation, are also prevalent (Corrada; Edwards et al.).

The literature focuses mostly on implementation, such as students' perceptions of and resistance to experiential learning techniques (Kaufman and Mann), illustrating that this practice is prevalent rather than advocated. Further, the focus of the literature is on new experimental uses of these techniques. For example, Richard Ackerman and Patricia Maslin-Ostrowski discuss the effectiveness of an innovative approach to the case study. That method uses "case stories," which differ from conventional case studies in that they are highly personal written accounts of real events with intriguing decision points and provocative undercurrents that encourage discussion.

Discussions of setting standards and learning objectives and providing ongoing feedback are also more prevalent in the literature on graduate programs than in that on undergraduate programs (Goss).

Empowerment of the Faculty

The literature on graduate and professional programs is filled with discussions about the importance of mentoring new faculty and defining ways to make adjunct faculty feel more included (Keating; Klein et al.). Faculty development is emphasized even more in the graduate literature, perhaps as a result of efforts to keep up with changes in business, industry, and professional fields. In general, faculty development appears to be less contested than in undergraduate education. Moreover, the role of the faculty is not debated in most professional and graduate fields, and a clear commitment to teaching and an

emphasis on the importance of pedagogy are evident (Elam). An overlap occurs in some programs when faculty teach both undergraduate and graduate classes, although this literature review explored faculty who tend to teach only in graduate school. An interesting area for research might be an exploration of faculty who teach at both levels. Research that explores differences among faculty who teach primarily at the graduate or undergraduate level might also prove helpful in better understanding faculty roles and attitudes. Equity among faculty is also clearly represented, including the importance of recruiting underrepresented faculty and developing an inclusive environment.

Equity

Equity is among the most common themes in the literature on graduate education. Discussions range from increasing the number of students in graduate school and eliminating barriers to entry (Ibarra) to increasing funding while in school to support minority students (Lee; Taylor) to career mobility for underrepresented groups that obtain graduate degrees (Le-Doux) to differences in learning styles based on gender, race, and ethnicity (Baxter-Magolda). Programs that are particularly successful in recruiting, admitting, and graduating underrepresented minorities in graduate programs around the country are well represented in the literature (Rodriguez). Several articles also focus on the way that graduate programs can modify instruction, services, or processes to include a range of students, including the learning disabled and the physically disabled (Adams). These articles also suggest how, in addition to removing barriers, other steps can greatly increase retention, including providing a positive environment through collaborative learning and fostering pride in accomplishment and confidence(Lewis). Graduate programs are even conducting studies exploring the experience of students and ascertaining the performance of support services. For example, Mark Townsend et al. surveyed 185 lesbian, gay, and bisexual medical students at 92 schools and found that students with access to community or school support groups are significantly more likely to disclose their sexual orientation and to know faculty with whom they can discuss related issues.

Some fields seem more open to issues of equity. Almost all graduate programs are interested in recruiting, retraining, and graduating students of color or women, but fewer programs are examining or transforming pedagogy, curricula, services, or faculty development to provide a more inclusive environment. Social work, education, the humanities, and certain social science fields such as psychology are clearly more open than, for example, law and medicine (Norman and Wheeler). Equity also is closely tied to the other prevalent theme in the literature related to equity and access: funding and other factors that lead to attrition.

Attrition and Financial Aid

Attrition in graduate and professional schools is quite high, especially among underrepresented groups. The authors noted in the preceding section describe factors contributing to attrition that are specific to certain populations. Some general factors are also highlighted in the literature, including department or program culture and finances. For example, Barbara Lovitts describes the impact of culture in "Who Is Responsible for Graduate Student Attrition?" noting how graduate schools have responded to the problem of attrition by placing greater emphasis on selection and assuming that better, more informed decisions about admission would result in declining attrition. Yet the problem persists, and the question arises as to whether attrition is the result of characteristics of individual graduate students or of factors inherent in the structure, process, and culture of graduate education. Lovitts's paper argues that attrition has less to do with what students bring to the university than with what happens to them after they have been admitted, especially the culture of the program. More research is needed on the impact of cohorts, departmental leadership, assistantships, and opportunities for work.

A concern about the rise of indebtedness among graduate students is related to the theme of attrition, as many students drop out because of the burden of debt or the difficulty finding funding (Luan and Fenske; Kassebaum et al.). The time to earn a degree is also affected by

finances, with those receiving less funding taking longer to complete the degree. The impact of finances on enrollment and retention is quite clear. What might be helpful is research on how this knowledge is translated into policy and program decisions.

Responsiveness to the Profession and the Public

Faculty in graduate programs tend to be much more responsive to the professional fields they serve and to the public in general than faculty in undergraduate fields. During just 1996, architecture, business, medicine, social work, law, engineering, and most of the sciences conducted some survey, report, or review of their responsiveness to the field of practice to which they are related (Boyer and Mitgang). This phenomenon also leads to greater collaboration and partnerships with communities and states and ownership of joint goals (Clark; Donahue et al.; Figueroa and Silverman). For example, the Optometric Center of Los Angeles provides students of the Southern California College of Optometry with an urban clinical environment that incorporates diversity, high levels of pathology, and community involvement. Through networking with outside agencies and with foundation help, the center provides a valuable educational setting for students and a high-profile resource for the community, resulting in teaching and research that is more closely tied to practice (Williard). It has enabled discussion of the public's growing suspicion of professionalism, which can result in objectifying people (Mathews). Service learning provides a vehicle for undergraduates to become more closely tied to communities, but the different goals and outcomes of graduate and undergraduate education should be considered when negotiating the relationship between higher education and the larger community.

One area for future research is the growth of credentialism. Businesses (for example, the big six accounting firms) are beginning to recruit MBAs and M.A.s rather than B.A.s. What impact will this trend of requiring higher credentials have on higher education and society? What is higher education's role in helping businesses to set standards for the hiring of graduates?

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